

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.

This Page Blank (uspto)

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 March 2002 (21.03.2002)

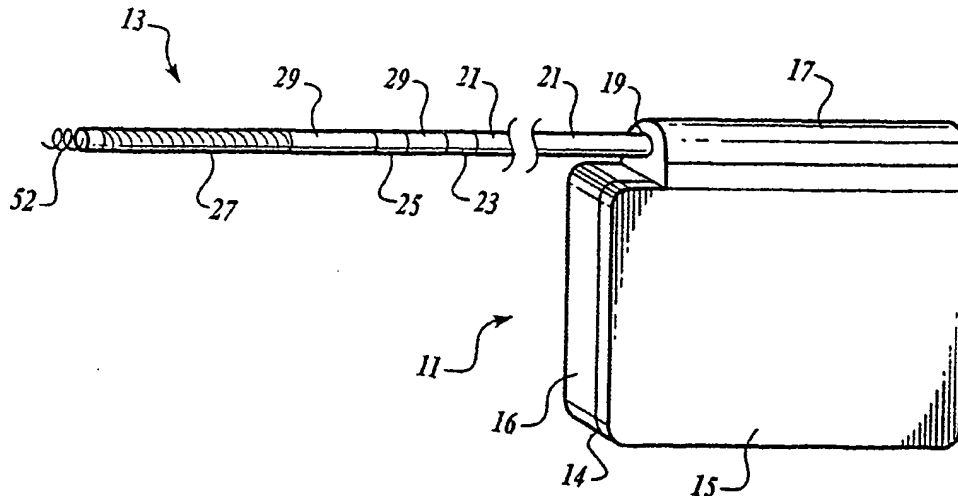
PCT

(10) International Publication Number
WO 02/22208 A3

- (51) International Patent Classification⁷: A61N 1/39 (74) Agents: PETTIT, Jonathan, L. et al.; Brobeck, Phleger & Harrison, 12390 El Camino Real, San Diego, CA 92130 (US).
- (21) International Application Number: PCT/US01/29168
- (22) International Filing Date:
14 September 2001 (14.09.2001) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/663,607 18 September 2000 (18.09.2000) US
- (71) Applicant (*for all designated States except US*): CAMERON HEALTH, INC. [US/US]; 924-A Calle Negocio, San Clemente, CA 92673 (US).
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): BARDY, Gust, H. [US/US]; 2518 Constance Drive West, Seattle, WA 98199 (US). CAPPATO, Riccardo [IT/IT]; Via Fluvio Testi, 22, I-44100 Ferrara (IT).
- Published:
— with international search report

[Continued on next page]

(54) Title: SUBCUTANEOUS ONLY IMPLANTABLE CARDIOVERTER-DEFIBRILLATOR AND OPTIONAL PACER



(57) Abstract: A subcutaneous implantable cardioverter-defibrillator is disclosed which has an electrically active canister which houses a source of electrical energy, a capacitor, and operational circuitry that senses the presence of potentially fatal heart rhythms. At least one subcutaneous electrode that serves as the opposite electrode from the canister is attached to the canister via a lead system. Cardioversion-defibrillation energy is delivered when the operational circuitry senses a potentially fatal heart rhythm. There are no transvenous, intracardiac, or epicardial electrodes. A method of subcutaneously implanting the cardioverter-defibrillator is also disclosed as well as a kit for conducting the method.

WO 02/22208 A3



— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

6 June 2002

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/29168

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61N1/39

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61N A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 366 496 A (DAHL ROGER W ET AL) 22 November 1994 (1994-11-22) the whole document --- -/--	1,4,13



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

19 March 2002

Date of mailing of the international search report

26/03/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ferrigno, A

INTERNATIONAL SEARCH REPORT

International Application No
PC1/US 01/29168

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 385 574 A (HAUSER ROBERT G ET AL) 31 January 1995 (1995-01-31)	48,54, 55,61, 81,82, 88,99, 101,103, 111,113, 117,119, 121,122, 124
Y	the whole document ----	1,4,10, 11,13, 24,26, 27,44, 123
Y	US 5 603 732 A (DAHL ROGER W ET AL) 18 February 1997 (1997-02-18) cited in the application the whole document ----	1,4,10, 11,13, 24,26,27
Y	US 4 830 005 A (WOSKOW ROBERT M) 16 May 1989 (1989-05-16) the whole document ----	44
Y	US 5 129 392 A (MEHRA RAHUL ET AL) 14 July 1992 (1992-07-14) cited in the application the whole document ----	123
Y	EP 0 517 494 A (CARDIAC PACEMAKERS) 9 December 1992 (1992-12-09) the whole document ----	136
Y	WO 99 53991 A (ALZA CORP) 28 October 1999 (1999-10-28) the whole document ----	136
A	US 5 331 966 A (BENNETT TOM D ET AL) 26 July 1994 (1994-07-26) the whole document -----	25,86, 102,115

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-33,44-124

subcutaneous implantable cardioverter-defibrillator

2. Claims: 136,137

apparatus for implanting an implantable
cardioverter-defibrillator

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PC1/US 01/29168

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5366496	A	22-11-1994	NONE
US 5385574	A	31-01-1995	US 5133353 A 28-07-1992 AT 168024 T 15-07-1998 AU 641224 B2 16-09-1993 AU 7354591 A 07-11-1991 CA 2040800 A1 26-10-1991 DE 69129716 D1 13-08-1998 DE 69129716 T2 24-12-1998 DK 453761 T3 19-04-1999 EP 0453761 A1 30-10-1991 ES 2120411 T3 01-11-1998 JP 5064666 A 19-03-1993 US 6157860 A 05-12-2000 US 5713926 A 03-02-1998 US 6280462 B1 28-08-2001 US 5916238 A 29-06-1999
US 5603732	A	18-02-1997	US 5545202 A 13-08-1996 US 5360442 A 01-11-1994 US 5203348 A 20-04-1993 CA 2027744 A1 07-12-1991 DE 69026081 D1 25-04-1996 EP 0460324 A2 11-12-1991 JP 1851562 C 21-06-1994 JP 4040966 A 12-02-1992 JP 5067310 B 24-09-1993 US 5342407 A 30-08-1994 US 5230337 A 27-07-1993
US 4830005	A	16-05-1989	NONE
US 5129392	A	14-07-1992	AU 649094 B2 12-05-1994 AU 9090391 A 22-07-1992 CA 2095603 A1 21-06-1992 DE 69106001 D1 26-01-1995 DE 69106001 T2 27-04-1995 EP 0563122 A1 06-10-1993 WO 9211064 A1 09-07-1992
EP 0517494	A	09-12-1992	US 5300106 A 05-04-1994 AT 142117 T 15-09-1996 CA 2070514 A1 08-12-1992 DE 69213336 D1 10-10-1996 DE 69213336 T2 24-04-1997 EP 0517494 A2 09-12-1992 HK 1007971 A1 30-04-1999 JP 6339532 A 13-12-1994
WO 9953991	A	28-10-1999	AU 3748899 A 08-11-1999 TW 442273 B 23-06-2001 WO 9953991 A1 28-10-1999
US 5331966	A	26-07-1994	AU 654552 B2 10-11-1994 AU 1750692 A 02-11-1992 CA 2106378 A1 06-10-1992 DE 69210395 D1 05-06-1996 DE 69210395 T2 09-01-1997

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/29168

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5331966	A	EP 0578748 A1	19-01-1994
		JP 2655204 B2	17-09-1997
		JP 6505662 T	30-06-1994
		WO 9217240 A1	15-10-1992
<hr/>			

This Page Blank (uspto)